



Appl. No. 10/077,344

Atty. Docket No. 10012140-1

AMENDMENTS TO THE DRAWINGS:

The attached two replacement sheets of drawings include changes to Figures 1 and 2. These sheets replace the original sheets containing Figures 1 and 2. The changes to the drawings, which are made in accordance with the Examiner's suggestion, include adding suitable legends and providing arrowheads to lines connecting elements so as to better distinguish these lines from lead lines. The Examiner's approval is requested.

Attachments: Replacement Sheets

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REMARKS

This application has been carefully reviewed in light of the Office Action dated November 3, 2004. By way of this amendment, claims 1, 5-10, 12, 14, 15, 17-19 and 21 have been amended. Minor corrections to the specification have been made. Claims 1-23 are currently pending in the application. Applicant hereby requests further examination and reconsideration in view of the following remarks.

The Examiner has objected to the drawings as failing to comply with 37 CFR 1.84(p)(5) because reference character "T3" used in Figure 3 is not mentioned in the description. Accordingly, applicant has amended paragraph 0029 to include an appropriate reference to reference character "T3." Applicant has also amended the specification, including the claims, to correct various informalities as required by the Examiner.

The Examiner has also recommended that suitable legends be added to Figures 1 and 2 and certain lines in Figures 1 and 2 be provided with arrowheads to avoid confusion. Accordingly, applicant submits herewith two replacement sheets on which the requested changes to Figures 1 and 2 have been made.

The Examiner has rejected claims 1-23 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement and under 35 U.S.C. § 112, second paragraph, as being indefinite. These grounds of rejection are respectfully traversed. In both rejections, the Examiner states that "[a]pplicant seems to be claiming the inefficiency of converting to at least one undesired intermediate format before converting to the desired end result, rather than directly converting to the desired format." Applicant respectfully submits that an invention being "inefficient" or "undesirable" does not necessarily render it either unenabled or indefinite. Moreover, applicant submits that the claimed invention is neither inefficient

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nor undesirable. The claimed chain of translators applies to situations where no individual translator is available to directly accomplish the conversion (see paragraph 0003, lines 3-5 of present specification). If a translator is available that can directly convert a datafile from an initial format to the desired final format, then such a single step translator is used (see paragraph 0026, lines 6-8). The claimed invention, which facilitates printing of datafiles in otherwise unsupported formats, is clearly not inefficient.

Furthermore, it is respectfully submitted that the present specification does adequately describe the claimed invention, regardless of any alleged "inefficiency." For instance, paragraph 0010 states that "[t]he present invention provides methods and an apparatus system for chaining translation in order to convert data files into desired formats. These methods and apparatus system are especially useful in transforming file formats to allow files to be printed as documents, with printer drivers that do not support printing those formats." Paragraph 0027 states that a chain of translators is generated that may be used to convert an initial file format into the final file format. Paragraphs 0029-0032 describe how the controller utilizes the chain of translators to accomplish the conversion.

Accordingly, it is respectfully submitted that the claimed invention is adequately described such that claims 1-23 are definite and comply with the enablement requirement. Applicant thus requests that the rejections under 35 U.S.C. § 112, first and second paragraphs, be withdrawn.

The Examiner has rejected claims 1-23 under 35 U.S.C. § 103(a) as being unpatentable over Chang in view of Jacobs and further in view of Merz. This ground of rejection is respectfully traversed.

Chang discloses an information apparatus 200 that manages output of content to an output device 220. The output device 220 can be a printer and includes an output controller 230. Chang also discusses converting output data into a format acceptable to a printer controller.

However, Chang does not teach using a controller to access a registry database containing a listing of available translators or using a controller to select a chain of translators for sequentially converting a datafile from a first format to a second format, as required by claim 1. Chang also fails to teach the claim 1 limitations of converting the datafile using the chain of translators and conveying a first job specification command to one of the translators so that a first translator accesses the datafile in the first format and a second translator directly accesses an output of the first translator. While Chang mentions converting output data into a different format, there is simply no mention of using a chain of translators.

Recognizing the shortcomings of Chang, the Examiner contends that it would have been obvious to modify Chang in light of the teachings of Jacobs. Jacobs discloses a system and method for concurrently executing multiple spooling systems. The system includes a server 34 having a front end 42 and a plurality of translators 44. A spooling system 40 is associated with each translator 44 and a printer 46 is associated with each spooling system 40. Upon receiving a print request from a client computer 32, the front end 42 determines which translator 44 to send the print request to, based on the destination printer specified in the print request (see column 4, lines 64-67 and column 5, lines 51-57). In other words, the print request is sent to the translator 44 that corresponds to the destination printer 46. That translator 44 then translates the print request into a format specified by the spooling system 40 corresponding to the destination printer (see column 5, lines 1-5). The translated print request is sent to the appropriate spooling system 40, where it is processed, and then sent to the destination printer 46. Jacobs does not disclose a print request, or any form of data, being translated by more than one translator. Jacobs does provide multiple translators, but these translators are used independently, not as part of a chain. Jacobs simply does not suggest using a chain of translators sequentially to translate a datafile. Jacobs teaches using the translators concurrently, not sequentially. Thus,

even if Chang were modified in light of the teachings of Jacobs, the resulting combination would still lack the claimed limitations of accessing a registry database containing a listing of available translators, selecting a chain of translators for sequentially converting a datafile from a first format to a second format, converting the datafile using the chain of translators.

The proposed Chang-Jacobs combination also fails to suggest a second translator directly accessing an output of a first translator, as is required by claim 1. The translators 44 of Jacobs receive output from the front end 42 only; none of the translators 44 access the output from another translator.

The Examiner contends that Merz teaches a subsequent translator in a conversion sequence directly accessing an output of an initial translator. Specifically, the Examiner asserts that Merz teaches "conversion of PDF to Raster Graphics Formats via a PostScript intermediate format." Applicant respectfully disagrees with this position. The Merz reference does not teach or suggest in any way the sequential use of a chain of translators. The two specific sections of Merz identified by the Examiner discuss 1) converting PDF files to PostScript Level 2 (page 23), and 2) converting PostScript to PostScript raster graphics (page 22). However, these are described as two separate operations and there is simply no suggestion of executing these two operations as a chained, sequential process. And even assuming for the sake of argument that Merz teaches that it may be *possible* to convert PDF files to PostScript raster graphics via a PostScript intermediate format, there is no reason to do this because there is nothing to suggest that it is not possible to directly convert PDF files to PostScript raster graphics. Moreover, Merz clearly does not teach using a controller to initiate the two separate conversion in a sequential manner.

For the above reasons, it is respectfully submitted that independent claim 1 is allowable over Chang in view of Jacobs and further in view of Merz. Claims 2-11 depend from claim 1 and are thus also believed to

be allowable. Furthermore, these dependent claims set forth limitations not met by the prior art. For instance, claim 2 recites that the printer includes a web server. Contrary to the Examiner's contention, Chang does not disclose a printer that includes a web server. While Chang does state that the output device 220 can be a printer and that the printer can include a server, there is no teaching that the output device 220 can include a web server.

Consequently, Chang also fails to disclose conveying a first job specification command using a web server as recited in claim 3. Claims 6 and 8 both recite that a translator accessing data directly from another translator. As discussed above, the combination of references relied on by the Examiner does not teach or suggest this. The references also fail to disclose a registry database contained on a computer that is geographically separate from the printer, as required by claim 9, or first and second translators located on geographically separate computers, as recited in claim 10.

Independent claim 12 recites a method of linking format conversion programs to convert a datafile from an initial format into a desired final format. Applicant respectfully disagrees that claim 12 is rendered obvious by the combination of Chang, Jacobs and Merz. For the reasons discussed above, it is submitted that the combination of references do not teach the claim 12 recitations of accessing a registry database containing information on translators to determine what translators are available over a network, or selecting among the translators to design a chain of translators capable of sequentially converting the datafile from an initial format to a desired final format. As discussed above, the references, either taken alone or in combination, do not suggest using a chain of translators sequentially. The references also fail to disclose a subsequent translator in the chain of translators directly accessing the output of an initial translator, as required by claim 12.

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Accordingly, it is respectfully submitted that independent claim 12 is allowable over Chang in view of Jacobs and further in view of Merz. Claims 13-19 depend from claim 12 and are thus also believed to be allowable. Furthermore, these dependent claims set forth limitations not met by the prior art.

Lastly, claim 21 recites a system for printing a datafile in an unsupported initial format. The system includes a registry database containing information concerning a selection of datafile format translators that are available using a network, and a printer attached to the network and comprising a controller. The controller is configured to design a chain of translators capable of sequentially converting said datafile from the unsupported initial format to an appropriate final format. The combination of references cited by the Examiner does not teach or suggest such a system. As previously mentioned, there is no disclosure designing a chain of translators to sequentially convert a datafile to a final format. Jacobs teaches a plurality of translators but there is no suggestion that the translators are used sequentially in a chain. There is no suggestion of a translator directly accessing the output of a prior translator. Merz discusses various types of format conversions but fails to suggest performing multiple conversions sequentially to arrive at a desired final format.

Therefore, it is respectfully submitted that independent claim 21 is allowable over Chang in view of Jacobs and further in view of Merz. Claims 22 and 23 depend from claim 21 and are thus also believed to be allowable. Furthermore, these dependent claims set forth limitations not met by the prior art.

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In view of the above, it is submitted that the claims are in condition for allowance. Reconsideration of the objections and rejections is requested. Allowance of claims 1-23 at an early date is solicited.

Respectfully submitted,

2/3/05

Date

Patrick R. Scanlon

Patrick R. Scanlon
Reg. No. 34,500
207-791-3110